Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-33. (Canceled)

34. (Currently amended) A method of irradiating an article using a plurality [[pair]] of radiation sources disposed on opposite sides of a load transport member configured to transport the article along a transport path, ~~wherein a cumulative amount of radiation in the article is between first and second limits where the second limit is greater than the first limit and where the first and second limits are greater than zero~~, including the steps of:

determining whether the article will receive a cumulative amount of radiation between a first limit and a second limit;

positioning a radiation reducing member either into or out of a radiation path of a radiation source based on the determination of cumulative radiation; and

directing radiation to the article from radiation sources disposed on opposite sides of the load transport member. ~~article,~~

~~determining whether the article will be receiving a cumulative amount of radiation between the first limit and the second limit,~~

~~directing the radiation to the article when it is determined that the cumulative amount of radiation in the article will be between the first limit and the second limit, and~~

~~reducing the intensity of the radiation directed to the article, when it is determined that the cumulative amount of radiation in the article will be above the second limit, so that the reduced amount of radiation directed to the article will be between the first limit and the second limit.~~

35. (Currently amended) [[A]] The method ~~as set forth in~~ of claim 34 wherein the radiation reducing member is positioned out of a radiation path of the radiation source ~~intensity of the radiation directed to the article is not reduced~~ when it is determined that the cumulative amount of radiation will be [[is]] between the first and second limits.

36-46. (Canceled)

47. (Currently amended) A system for irradiating an article, comprising

a load transport member configured to transport a plurality of articles through the system in a transport path;

~~a pair of~~ at least two radiation sources disposed on opposite sides of the load transport member, wherein each radiation source is configured to direct a radiation stream toward the transport path ~~article~~ for irradiating the article; [[, and]]

a microprocessor ~~for determining~~ configured to determine whether ~~the intensity of~~ a cumulative amount of radiation that will be applied by the radiation sources to [[of] the article will be between a first limit and a second limit ~~where the first and second limits are different from zero and where~~, wherein the second limit is greater than the first limit; [[, and]]

a radiation reducing member; and

a radiation reducing member actuator that is configured to move the radiation reducing member between a first position wherein the radiation reducing member is disposed outside of the radiation stream of at least one of the radiation sources and a second position wherein the radiation reducing member is disposed within the radiation stream and between the radiation source and the transport path. ~~responsive to the determination by the microprocessor for reducing the intensity of the cumulative amount of radiation to a value between the first limit and the~~

~~second limit when the microprocessor determines that the intensity of the radiation of the article will be greater than the second limit.~~

48. (Currently amended) [[A]] The system for irradiating an article of ~~as set forth in~~ claim 47 wherein the radiation reducing member is configured to be located in the first position responsive to a determination by the microprocessor ~~does not provide for a reduction in the intensity of the cumulative amount of radiation of the article when the microprocessor determines~~ that the ~~intensity of the~~ cumulative amount of radiation is between the first and second limits.

49. (Canceled)

50. (Canceled)

51. (New) The system for irradiating an article of claim 47, wherein the radiation reducing member is configured to be located in the second position responsive to a determination by the microprocessor that the cumulative amount of radiation applied to the article will be greater than the second limit.

52. (New) The system for irradiating an article of claim 47, wherein the load transport member is a substantially horizontal conveyor and the at least one radiation source is disposed above the conveyor and at least one radiation source is disposed below the conveyor.

53. (New) The system for irradiating an article of claim 47, wherein load transport member is a plurality of substantially horizontal conveyors configured to cooperatively transport articles in the transport path, wherein at least two horizontal conveyors are spaced from each other.

54. (New) The system for irradiating an article of claim 53, wherein at least one radiation source is configured to direct the radiation stream through the space between the horizontal conveyors to the transport path.

55. (New) The system for irradiating an article of claim 47, wherein the microprocessor is configured to determine the cumulative amount of radiation that will be applied by an article based on a determination of the thickness of the article.

56. (New) The system for irradiating an article of claim 47, wherein the load transport member is configured to transport a plurality of articles through the system in a second transport path.

57. (New) The system for irradiating an article of claim 56, wherein the second transport path is generally parallel to the first transport path.

58. (New) The system for irradiating an article of claim 56, wherein the first and second transport path are convergent at a location before the radiation sources.

59. (New) The system for irradiating an article of claim 56, wherein the first and second transport paths are configured to travel at different rates.

60. (New) The system for irradiating an article of claim 47, wherein the radiation reducing member has a first portion that has a first thickness and a second portion that has a second thickness and the first portion of the radiation reducing member is disposed within the radiation stream and between the radiation source and the transport path when the radiation reducing member is in the second position.

61. (New) The system for irradiating an article of claim 60, wherein the second portion of the radiation reducing member is disposed within the radiation stream and between the radiation source and the transport path when the radiation reducing member is in the second position.

62. (New) The system for irradiating an article of claim 61, wherein the first portion of the radiation reducing member is disposed within the radiation stream and between the radiation source and the transport path when the radiation reducing member is in an intermediate position that is between the first position and the second position.

63. (New) The system for irradiating an article of claim 47, wherein at least one radiation source is disposed above the load transport member and at least one radiation source is disposed below the load transport member.

64. (New) The system for irradiating an article of claim 47, wherein the radiation sources are spaced from each other along the load transport member.

65. (New) The method of claim 34, further comprising the step of positioning a second radiation reducing member either into or out of a radiation path of a second radiation source based on the determination of cumulative radiation.

66. (New) The method of claim 34, wherein the radiation reducing member is positioned within a radiation path of the radiation source when it is determined that the cumulative amount of radiation will not be between the first and second limits.